

Environmental  
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**ERC Team**

**Meeting Minutes**

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**SUBJECT** GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT MEETING - AUGUST 21, 2000

**TO** Distribution

**FROM** Michael J. Graham, Groundwater/Vadose Zone Integration Project Manager

**DATE** September 12, 2000

**ATTENDEES**

See Attached List

**DISTRIBUTION**

Attendees  
GW/VZ Distribution List  
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**NEXT GW/VZ INTEGRATION PROJECT OPEN MEETING:**

Next Meeting: Monday, September 18, 2000 – 1-3 p.m.  
Location: Bechtel Hanford, Inc., Assembly Room (Badging Required)  
Local Call-In Number: (509) 376-7411  
Toll Free Call-In Number: (800) 664-0771

**MEETING MINUTES:**

A Groundwater/Vadose Zone (GW/VZ) Integration Project Open Meeting was held on August 21, 2000, in Richland, Washington, at the Bechtel Hanford, Inc. (BHI) Assembly Room.

**PROJECT REPORT:**

**INTEGRATED PROJECT SCHEDULE UPDATE (provided at meeting) (Dru Butler)**

We've been preparing the Detailed Work Plan (DWP) for fiscal years 2001 through 2003. We held a meeting with the regulators last week. This was our first chance to get input on the planning assumptions from some of our stakeholders, regulators and U.S. Department of Energy (DOE). We received some strong input regarding projects that fell below the funding line.

QUESTION: Is the site management board meeting today?

ANSWER: Yes.

**RPP Assessments (Tony Knepp)**

**SX-108 Sampling and Logging**

We have collected 17 samples from the slant hole near SX108. One sample was too dry and it dropped in the casing. The gamma logs' data only goes back so far. We are getting cesium and moisture measurements of about  $10^7$  pci/g. The measurements drop down to about 100 pci/g of cesium. All of the samples are being broken down in the lab. We are also looking for alterations from the leaked tank waste.

**BX-BY Drilling Plans**

In fiscal year 2001, we will be doing exploration style holes and two deep boreholes. We will be looking at uranium and technetium flow.

We requested date changes for the field investigation report. The additional time will allow Science & Technology (S&T) to process the data and turn out a reasonable report. The report is due at end of fiscal year 2001. Things are moving well. In next couple of months we will be doing the planning for the T/TX/TY area.

QUESTION: Are you going to get into T/TX/TY in fiscal year 2001?

ANSWER: Planning will be done in fiscal year 2001; actual field activities in fiscal year 2002.

QUESTION: Do you have any moisture data?

ANSWER: At the bottom of the tank there is a very high moisture level. Right at base of construction its compacted and there is a lot of moisture. After that the moisture is 3 – 6%, desert level moisture. Then, following that level the moisture goes up 12 –14%. Moisture levels pick up again at about 70 ft. below at the bottom of the tank.

QUESTION: Do you have any ideas about where the moisture comes from?

ANSWER: The data will indicate where the moisture comes from. We do have cesium, even from our lowest sample, at about 150-100 pci/g. The inside of the casing on one of our samples was contaminated when the sample dropped inside the casing. We have picked up more technetium than other contaminants. If it's up in the soils, that will lead to one conclusion. If it's above the soils, that will lead to a different conclusion. There is very little water movement.

QUESTION: Are you going to release the data to everybody?

ANSWER: We only have the gamma logs' data right now. I can e-mail the first of the logs. Everything is informal at this point. We have moisture data, preliminary lab data for cesium and the gamma log we ran about two weeks ago.

QUESTION: When will you have the lab data?

ANSWER: It will probably be done by the end of September. It usually takes a couple of weeks to complete a sample.

QUESTION: Will you send me a copy of the logs? (Dirk Dunning)

ANSWER: Yes.

**Science & Technology (Mark Freshley)**

**National Academy of Sciences Meeting Plans (Sept. 6-8)**

Over a week ago, Michael Graham and I talked to Kevin Crowley about the agenda for this upcoming meeting. The NAS (Kevin Crowley and Chris Whipple) are still working on finalizing the agenda.

Tentatively, the first day, September 6, 2000, will consist of the field trip that we did not have during the previous meeting due to the fire. As before, anyone who wants to come along, is welcome. Just let Priscilla Yamada or me know you are interested so arrangements can be made. The second day will start with the committee meeting together. There will be four topical areas – Groundwater/Vadose Zone, River and Groundwater/River Interface, System Assessment Capability (SAC), and Inventory/Characterization/Data Management. They want to get into more detail with each of these topical areas. In the afternoon of the second day, they will have break out groups centered around each of the four areas. On Friday, they will be in closed session and will adjourn at about noon. There is another meeting, tentatively scheduled for November 2 – 3. We will interact with them if they need more information. Our interaction with them on that meeting will be determined by results of the September 6 – 8, 2000, meeting. They are working up the agenda themselves and will post it on the web site.

QUESTION: Regarding the way the sessions are labeled, it's difficult to determine which one to attend. Is it possible to come up with more informative labels for the sessions?

ANSWER: I'll communicate that to Kevin and perhaps he can come up with more descriptive labels. The panel has same problem. I'll have Kevin get some specifics on each of the sessions.

COMMENT: Mark, I would like to go on the tour. (Dirk Dunning)

ANSWER: Okay.

COMMENT: I want to sign up for the tour also. (Gordon Rogers)

ANSWER: I'll put your name down.

### **Groundwater Management (Jeff Armatrout)**

#### **Tritium Investigations**

We have sampling going on in 26 wells so far. We are using the same geoprobe to punch those holes. We got refusal at about 40 ft. The use of that rig was cost effective. Now we're pulling back. We are going to discuss our options for going forward at this Wednesday's Unit Managers Meeting. There is a rig on site capable of doing the work for us.

QUESTION: What's refusal?

ANSWER: The rig just couldn't punch any further. It hit gravel.

QUESTION: How deep is groundwater?

ANSWER: About 85 feet.

### **In-Situ Redox Manipulation Status**

We have all the wells drilled for this fiscal year. Four wells have been injected and we are in the process of withdrawing on three now. The fifth well will be injected later this week. In 2001, we will put in 24 wells and in 2002 another 24 wells. Then, we'll have our 2000 foot barrier along the river.

**Resource Conservation and Recovery Act Drilling Update**

Our target is to have five done by the end of September.

**Well Decommissioning**

Our target is four wells by the end of fiscal year 2000, between the Vernita Bridge and the 100-B/C Area. We are trying to negotiate to decommission those. We will decommission between 70 – 90 wells next year. We have the budget to do that. We are getting the paperwork ready to go to the field.

QUESTION: How does the priority of decommissioning wells stack up with other work?

ANSWER: There is not a huge priority on the financial side. Nothing else is planned for 2001 or 2002. It's not a high priority, but it's not being ignored. Supplemental funding has been requested in the DWP.

**Features/Events/Processes (FEPs) Status (Bob Vaughan)**

The FEPs database is up and running for the project. We have put together a list of items we need to consider when doing the conceptual model. We are planning to have a status on all 1873 FEPs on the web site in the form of an Excel spreadsheet by the end of fiscal year 2000 (September 30, 2000).

QUESTION: What kind of review process will be used to prune that down to something reasonable?

ANSWER: We will go through and look at the applicability to the site. We started with the international list and weeded out those issues that we can justifiably exclude. Then, we considered consequence and probability. We are approaching it from all processes that operate within the release to river subsystems on the Hanford site. We are developing Process Relationship Diagrams (PRDs) to illustrate those systems. As it is broken down in to detail, that becomes the framework of the FEPs considered for the site. The PRDs become a template for the processes.

QUESTION: If I want a reasonable, quick idea of the conceptual model, I don't want a list of 1873. I want a list of about 20. Can you create a shorter list?

ANSWER: Yes. The PRD's illustrate the dominant parts of the system.

QUESTION: When will it roll off the charts?

ANSWER: It will be available by the end of September for wider review.

QUESTION: Does the list of 1873 include site generated items?

ANSWER: Yes.

QUESTION: Is a copy of the raw beginning available? (Dirk Dunning)

ANSWER: Yes. I can send that to you.

QUESTION: Can you send it to us also? (Dib Goswami)

ANSWER: Yes.

**200 Area Assessment (Bruce Ford)**

**DOE-RL Issued Draft 0 Workplans for 200-CW-1, 200-CS-1, 200-CW-5**

We have had a flurry of activity in getting Rev 0 workplans out to regulators and tribal nations. We are working with the regulators to get final approval on the documents.

**Tri-Party Agreement Milestones associated with Draft 0 Work Plans**

We have identified interim milestones associated with that work. We hope to get approval at the InterAgency Management Integration Team (IAMIT) meeting tomorrow, August 22, 2000. The milestones address work from field activities through proposed plans.

QUESTION: Because of the transition in office location for the Yakama Indian Nation, I want to give you my new mailing address. (Wade Riggsbee, Yakama Indian Nation)

ANSWER: Send it to Kevin Clark at DOE-RL as well and he can distribute it.

COMMENT: As clarification, even though TPA milestones may be agreed to in the IAMIT meeting, the 200 Area Remediation Project is still struggling with funding. The source of funding has not been completely resolved. (Wade Riggsbee)

**Upcoming Events (Dru Butler)**

The Environmental Management Advisory Board (EMAB) will be meeting in Richland, August 28-30, 2000. This group will review our S&T programs. They look at fuels, high level waste, all the Hanford activities. Debbie Traitor of DOE-RL is coordinating this EMAB meeting.

Some other events shown on the project calendar are the Hanford Advisor Board (HAB) Meeting, the Public Involvement Committee, and the NAS meeting. There is also a Regulatory Path Forward Workshop.

COMMENT: If you read Parade, you might have noticed that Hanford didn't get credit for plutonium or Nagasaki – the two bombs that ended World War II.

**NOTES:**

GW/VZ Web Site location: <http://www.bhi-erc.com/vadose>

If you have questions or comments please contact Dru Butler (509-375-4669) or Alison Kent (509-372-9192).

**ATTACHMENTS:**

- 1) GW/VZ Integration Project Two Month Look Ahead Calendar

**ATTENDEES:**

Jeff Armatrout - BHI

Dru Butler - BHI

Martin Bensky – Tri-Cities Caucus

Shelley Cimon - HAB

Don Clarke – JAI Corp.

Dirk Dunning - ODOE

Bruce Ford - BHI

Mark Freshley - PNNL

Dib Goswami - Ecology

Kathy Huss - SAIC

Gary Jewell - BHI

Alison Kent - BHI

Tony Knepp - CHG

Stuart Luttrell - PNNL

Katy Makeig - SMS

Fred Mann - FFS

Gary McNair - PNNL

Greg Mitchem - BHI

Wade Riggsbee – Yakama Nation

Gordon Rogers - HAB

Steve Sautter - BHI

Stan Sobczyk – NPT

Mike Thompson – DOE-RL

Bob Vaughan - BHI

Rob Yasek – DOE-RL

Jamie Zeisloft – DOE-RL

*GW/VZ INTEGRATION PROJECT*  
**AUGUST 21, 2000 – OCTOBER 31, 2000**  
*THREE MONTH LOOK AHEAD CALENDAR*

<b>August 21</b>	GW/VZ Open Project Team Meeting BHI Assembly Room – 1-3 p.m. (Contact: Dru Butler)
<b>August 28-29</b>	Environmental Management Advisory Board (Richland, WA)
<b>September 4</b>	CANCELLED DUE TO HOLIDAY: GW/VZ Project Open Meeting (1-3 p.m., BHI Assembly Room)
<b>September 6</b>	HAB-PI Committee Meeting (Seattle, WA)
<b>September 6-7</b>	NAS Meeting (Richland, WA)
<b>September 7-8</b>	HAB Meeting (Seattle)
<b>September 11</b>	Regulatory Path Forward Workshop – 200 Area Source Units (9 a.m. – 4 p.m., BHI Assembly Room)
<b>September 12</b>	HAB Environmental Restoration Meeting BHI Assembly Room – 8 a.m. – 4 p.m.
<b>September 18</b>	GW/VZ Open Project Team Meeting BHI Assembly Room – 1-3 p.m. (Contact: Dru Butler)
<b>October 2</b>	GW/VZ Open Project Team Meeting BHI Assembly Room – 1-3 p.m. (Contact: Dru Butler)
<b>October 10</b>	HAB Environmental Restoration Meeting BHI Assembly Room – 8 a.m. – 4 p.m.
<b>October 16</b>	GW/VZ Open Project Team Meeting BHI Assembly Room – 1-3 p.m. (Contact: Dru Butler)
<b>October 23-24</b>	Oregon-Hanford Waste Board Hood River, OR
<b>October 25-27</b>	Integration Project Expert Panel Meeting BHI Assembly Room